

Application No. 10/733,861
Reply to Office Action of March 19, 2008

REMARKS / ARGUMENTS

Claims 1-7 and 12-30 are pending in the instant application. Claims 2-7, 12, 14-18 and 27-30 have been amended. Claims 8-11 and 19-26 have been previously cancelled. Claims 1-7, 12-18 and 27-30 are rejected.

Claims 27-30 are rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description.

Claims 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Neumann et al. (U.S. Pub. No. 2002/0141441A1, hereinafter "Neumann").

Claims 1-2, 4-7, 12-14, 16-18 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann in view of Kransmo (US Patent 6,594,242 B1, hereinafter "Kransmo").

Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann in view of Kransmo, and further in view of Schmidt (US Pub. No. 2003/0067894 A1, hereinafter "Schmidt").

The Applicant respectfully traverses these rejections and submits that claims 1-7, 12-18 and 27-30 define patentable subject matter at least for the reasons previously set forth during prosecution and at least based on the following remarks.

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I. Election / Restriction

The Applicant has previously elected Group I, namely claims 1-7, 12-18 and 27-30, without traverse. Claims 19-26 were objected to as being drawn to a separate and distinct invention (Group II) of a multi mode wireless communication device and method. Claims 19-26 have now been cancelled without prejudice. The Application reserves the right to prosecute cancelled claims 19-26 in a subsequent divisional or continuation application.

II. Amendments to the Specification

The Applicant has amended the specification to correct minor typographical errors that appear on pages 13 and 15 of the specification.

III. Amendments to the Drawing

The Applicant has submitted replacement sheets to amend Figures 5, 6 and 11 to correct for minor typographical errors without adding new matter. In the amended Figure 5, the Applicant has added the reference designation 536 between the Physical Stratum and Protocol Stratum. In the amended Figure 6, the Applicant has interchanged the reference designation position from 506 and 508 to 508 and 506. In the amended Figure 11, the Applicant has added the reference

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designation 1101 to the box that indicates the GSM/GPRS ASIC, and 1104 to the box that indicates the WCDMA ASIC.

IV. REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

The Applicant first turns to the rejection of claims 27-30 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description.

"Independent claims 27, 29 and 30 (added in a previous amendment by applicant) contain subject matter that was not described in the specification. The phrases "a first buffer in communication with said first physical layer module and said first bearer-specific module" and "wherein said first baseband co-processor includes a second buffer in communication with said first bearer-specific module and said data communication channel" in independent claims 27 and 30 and the phrase "a first buffer in communication with said first physical layer module and said first bearer-specific module" in independent claim 29 has not been described in the specification."

See the Office Action at page 4. The Applicant has amended claims 27, 29 and 30, as set forth above, to clarify the claim language and to address the rejection under 35 U.S.C. 112. The Applicant submits that the amendments are supported by the Applicant's Figs. 5-9, as well as the corresponding description appearing in pages 10-17 of the specification, and respectfully requests that the rejection of claims 27, 29 and 30 under 35 U.S.C. 112 be withdrawn.

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V. REJECTION UNDER 35 U.S.C. § 102

With regard to the anticipation rejections under 102(e), MPEP 2131 states that:

"[a] claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." See Manual of Patent Examining Procedure (MPEP) at 2131 (internal citation omitted) (emphasis added). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See *id.* (internal citation omitted).

A. Neumann Does Not Anticipate Claims 27 and 28

The Applicant first turns to the rejection of claims 27 and 28 under 35 U.S.C. 102(e) as being anticipated by Neumann. Without conceding that Neumann qualifies as prior art under 35 U.S.C. 102(e), the Applicant respectfully traverses this rejection as follows.

A(1). Rejection of Independent Claim 27 under 35 U.S.C. § 102(e)

With regard to the rejection of independent claim 27 under 35 U.S.C. § 102(e), the Applicant submits that Neumann does not disclose or suggest at least the limitation of "said host baseband processor comprises: ... a first bearer-specific module for implementing bearer-specific stack functions related to said first wireless communications protocol," as recited in the Applicant's claim 27.

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In the Office Action, the Examiner asserts that Neumann discloses the following:

"a first bearer-specific module for implementing bearer-specific stack function related to said first wireless communication protocol (Figures 2-4, 6A, 613, 8A and 8B and the corresponding paragraphs, particularly paragraphs 45, 50, "TDMA RF unit 218 for bandpass filtering 618")"

See the Office Action at page 6. The Examiner seems to equate the TDMA RF unit 218 that does bandpass filtering 618, the same as the claimed "bearer-specific module." The Applicant respectfully disagrees and points out that the applicant's claim limitation recites that the host baseband processor (asserted as the GSM master processor 204 by the Examiner) comprises a first bearer specific module. As clearly seen in Neumann's Figure 2, the TDMA RF unit 218 communicates with the TDMA co-processor 204 and it does not communicate with the GSM master processor 202. In addition, the TDMA RF unit 218 is also not part of the GSM master baseband processor 202. Therefore, the TDMA RF unit 218 does not read on, and cannot be equated to, Applicant's "bearer-specific module" **in the host baseband processor.**

In addition, with regard to the rejection of independent claim 27 under 35 U.S.C. § 102(e), the Applicant submits that Neumann does not disclose or suggest at least the limitation of "**said host baseband processor comprises: ... a second buffer** in communication with said first bearer-specific module and said common stack functions module," as recited in the Applicant's claim 27.

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In the Office Action, the Examiner asserts that Neumann discloses the following:

"wherein said first baseband co-processor includes a second buffer in communication with said first bearer-specific module and said data communication channel (Figures 2-3, 6A, 6B, 8A and 8B and the corresponding paragraphs, particularly figure 2, "SRAM"), note that the SRAM memory is connected to the physical layer module and the bearer-specific module)"

See the Office Action at page 7. The Examiner seems to rely for support in Neumann's Fig. 2, asserting that the TDMA co-processor 204 is a bearer-specific module, and the SRAM 212 is the claimed "a second buffer in communication with said first bearer-specific module and said common stack functions module." The Applicant respectfully disagrees and points out that Neumann's SRAM 212 (asserted as the second buffer by the Examiner), interfaces only (as shown in Fig. 2) with the TDMA co-processor 204, which is not a host baseband processor. Thus, the Applicant maintains that **the SRAM 212 is not the Applicant's "second buffer,"** and therefore, Neumann does not disclose or suggest "**the host baseband processor comprises ... a second buffer,** in communication with said first bearer-specific module and said common stack functions module," as recited in claim 27 by the Applicant.

Moreover, with regard to the rejection of independent claim 27 under 35 U.S.C. § 102(e), the Applicant submits that Neumann does not disclose or suggest at least the limitation of "**said first baseband co-processor comprises:**

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... a first buffer in communication with said first physical layer module and said first bearer-specific module," as recited in the Applicant's claim 27.

In the Office Action, the Examiner asserts that Neumann discloses the following:

"a first buffer in communication with said first physical layer module and said first bearer-specific module (Figures 2-3, 6A, 613, 8A and 8B and the corresponding paragraphs particularly figure 2, "Flash"), note that the flash memory is connected to the physical layer module and the bearer-specific module)"

See the Office Action at pages 6-7. The Applicant points out that the Examiner's reference to the designation of 613 cannot be found in Figs 2-3, 6A, 8A-B, as stated in the Office Action. The Examiner seems to assert that the Flash memory 212 in Fig. 2 is a first buffer, and the TDMA co-processor 204 is a first baseband co-processor. However, the Applicant recites that the first buffer (Flash memory 212) is in communication with "said first physical layer module and said first bearer-specific module." Based on the Examiner's statement that "the flash memory (212) is connected to the physical layer module and the bearer specific module," it is not clear whether the Examiner is inferring that the TDMA co-processor 204 is both a physical module and a bearer-specific module, since the Flash memory 212 is shown to be coupled only to the TDMA co-processor 204.

Therefore, the Applicant respectfully disagrees that the TDMA co-processor 204 in Fig. 2 can be equated to both a physical module and a bearer-specific module, since the bearer-specific module resides in the host baseband

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processor, which is separate from the first baseband co-processor. Therefore, the Applicant maintains that Neumann does not disclose or suggest "**a first buffer in communication with said first physical layer module and said first bearer-specific module,**" as recited in claim 27 by the Applicant.

Based on the foregoing rationale, the Applicant respectfully submits that claim 27 is not anticipated by Neumann, and is allowable. The Applicant respectfully request that the rejection of claim 27 under 35 U.S.C. § 102(e) be withdrawn.

A(2). Rejection of Claim 28 under 35 U.S.C. § 102(e)

With regard to the rejection of claim 28 under 35 U.S.C. § 102(e), based on at least the foregoing, the Applicant believes the rejection of claim 27 under 35 U.S.C. § 102(e) has been overcome and requests that the rejection be withdrawn. Additionally, claim 28 depends from independent claim 27, therefore, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 27-28.

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VI. REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 (“MPEP”) states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art” (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

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A. THE PROPOSED COMBINATION OF NEUMANN AND KRANSMO DOES NOT RENDER CLAIMS 1-2, 4-7, 12-14, 16-18 AND 29-30 UNPATENTABLE

The Applicant now turns to the rejection of claims 1-2, 4-7, 12-14, 16-18 and 29-30 as being unpatentable over Neumann in view of Kransmo.

A(1). Independent Claims 1 and 13

With regard to the rejection of independent claims 1 and 13 under 35 U.S.C. § 103(a) over Neumann in view of Kransmo, the Applicant submits that the combination of Neumann and Kransmo at least does not disclose "**enabling switching between bearers** utilizing said low-level stack operations and said set of protocol stack operations **and maintaining bearer connections during said switching**," as recited in claim 1 by the Applicant. In the Office Action, the Examiner concedes the following:

"Neumann is silent about switching between bearers and maintaining bearer connections during switching as claimed"

See the Office Action at page 9. The Examiner then looks to Kransmo to teach the deficiency of claim limitation and states the following:

"However, the concepts of switching between different networks and hence different protocols and maintaining the connection are conventional in the art. Specifically, during a handoff process from a first network using a first protocol to a second network using a second protocol a switch between the

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networks has to take place. Consequently, the switch between different networks requires switching between different protocols.

Kransmo teaches a handover and roaming of a dual mode wireless terminal from a 3G network to a 2G network (abstract, col. 1, lines 50-67, and col. 2, lines 18-21, "handover and roaming of a wireless terminal from a third generation . . . to a second generation (2G) communication system", "operating protocols", note that a dual-mode mobile terminal capable of operating and roaming in two different systems is provided, where the handover process from a 3G system to a 2G **inherently** allows the dual mode wireless terminal to switch networks and **maintain connection with at least one of** the 2G and/or 3G networks and thus maintaining connection bearer a connection)"

See the Office Action at pages 9-10 (emphasis added). The Examiner alleges that Kransmo's handover process (switching) from a 3G system to a 2G system, **inherently maintain connection with at least one of** the 2G and/or 3G networks and thus maintaining connection. The Applicant respectfully disagrees and refers the Examiner to the following citation from Kransmo's Abstract:

"The method includes the step of **providing control channel information for the 2G communication system** over a downlink control channel of the 3G communication system to the wireless terminal. The node includes a means to communicate with the wireless communication terminal and a means providing control channel information of a second generation (2G) communication network over a downlink control channel at the 3G communication network."

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See Kransmo in the Abstract (emphasis added). The Applicant points out that Kransmo discloses how a 3G mobile terminal can synchronize with a GSM carrier (2G network) by providing channel control information, i.e. BCCH to align with a blank slot in the WCDMA frame (3G network) to synchronize frames in a base station during handoff (see Kransmo at col. 2 lines 31-63). Therefore, Kransmo discloses a synchronization method for handover between a 2G to a 3G network systems using channel control information. However, **Kransmo is silent in disclosing or suggesting enabling switching between bearers, let alone disclosing or suggesting maintaining bearer connections during switching.** The Applicant respectfully requests the Examiner to produce support to the above inherency argument in the Office Action.

A(1.1) INHERENCY

The Office Action states the following:

Claim 1 is rejected for similar reasons as stated above (i.e., the handover process from a 3G system to a 2G **inherently allows the dual mode wireless terminal to switch networks and maintain connection with at least one of the 2G and/or 3G networks and thus maintaining connection bearer a connection**).

See the Office Action at page 10. Initially, regardless of whether this statement is true or not, the Applicant notes that it appears that additional claims

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are being rejected based on inherency. That is, the Office Action cites that "claim 13 is rejected for similar reasons stated above ([that is,] it is inherent...").

The Applicant submits that a rejection based on inherency must include a statement of the rationale or evidence tending to show inherency. See Manual of Patent Examining Procedure at § 2112. "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." See *id.* citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be established by probabilities or possibilities.** The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). The Applicant respectfully submits that neither Kransmo itself nor the Office Action "make[s] clear that the missing descriptive matter," said to be inherent "is necessarily present in" Kransmo.

A rejection based on inherency must be based on factual or technical reasoning:

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning

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to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

The Applicant respectfully submits that the Office Action does not contain a basis in fact and/or technical reasoning to support the rejection based on inherency. Instead, as recited above, at least claim 9 of the present application stands rejected based on a conclusory statement of inherency, rather than upon a “basis in fact and/or technical reasoning.” Accordingly, the Applicant respectfully submits that, absent a “basis in fact and/or technical reasoning” for the rejection of record, that rejection of claims 1 and 13 should be reconsidered and withdrawn.

In addition, with regard to the rejection of claim 1 the Applicant points out that the Applicant’s claim 1 clearly recites “**maintaining bearer connections (both connections are maintained) during said switching,**” which is not the same as ‘**maintaining connection with at least one of** the bearer connections (asserted as the 2G and 3G network switching handoffs by the Examiner),” as asserted by the Examiner. Therefore, the Applicant submits that claim 1 is allowable.

Therefore, based on the foregoing rationale, the Applicant maintains that **the combination of Neumann and Kransmo does not disclose or suggest “enabling switching between bearers utilizing said low-level stack operations”**

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and said set of protocol stack operations and maintaining bearer connections during said switching," as recited by the Applicant in independent claim 1.

Accordingly, the Applicant believes the rejection of independent claims 1 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Kransmo has been overcome and requests that the rejection be withdrawn. Independent claim 13 is similar in many respects with independent claim 1, therefore also allowable based on the same rationale of claim 1.

A(2). Dependent Claims 2, 4-7, 12, 14, 16-18

Claims 2, 4-7, 12, 14, 16-18 depend directly or indirectly from independent claims 1 and 13, respectively, and are, consequently, also respectfully submitted to be allowable at least for the reasons stated above with regard to allowability of claim 1. The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2, 4-7, 12, 14, 16-18.

B. Independent Claims 29 and 30

Regarding independent claims 29 and 30 the Applicant submits that the same argument with regard to independent claim 1 and 27 above applies, namely, Neumann does not disclose "a host baseband processor comprises **a first bearer-specific module...**," and "said baseband co-processor comprises ... **a first buffer**

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in communication with said first physical layer module and said first bearer-specific module," as recited in claims 29 and 30 by the Applicant. In addition, Kransmo does not overcome the above deficiencies of Neumann.

Moreover, the combination of Neumann and Kransmo does not disclose or suggest "**enabling switching between bearers utilizing said low-level stack operations and said set of protocol stack operations and maintaining bearer connections during said switching,**" as recited in claims 29 and 30 by the Applicant. The Examiner has not been able to produce support to overcome the inherency argument using the reference by Kransmo.

Therefore, the Applicant submits that independent claims 29 and 30 should be allowable. Accordingly, the Applicant believes the rejection of independent claims 29 and 30 under 35 U.S.C. § 103(a) as being unpatentable over Neumann in view of Kransmo has been overcome and requests that the rejection be withdrawn.

C. The Proposed Combination of Neumann, Kransmo and Schmidt Does Not Render Claims 3 and 15 Unpatentable

Claims 3 and 15 depend from independent claims 1 and 13, respectively, and are, consequently, also respectfully submitted to be allowable at least for the reasons stated above with regard to allowability of claim 1. The Applicant also

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reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 3 and 15.

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CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-7, 12-18 and 27-30 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

Date: June 10, 2008

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